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REMARKS

This Preliminary Amendment is based on the claims set forth in the English translation filed on June 26, 2001. Entry hereof and early passage to issue are respectfully requested.

Applicant's undersigned attorney can be reached at 617-521-7896.

No fee is believed to be due for this Preliminary Amendment. However, if any fee is due, please apply it to deposit account no. 06-1050.

Respectfully submitted,

Date: December 13, 2001

  
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

1. (Amended) A method of [for] allocating channels in a communications system having code division multiple access (CDMA) [with CDMA] subscriber separation, [CDMA codes forming the channels for links, in which] comprising:

[ -] deriving [the] CDMA codes [which are available] for allocating communication channels for data links in the communication system using [are derived from one another in accordance with] a tree structure[,];

[ -] representing nodes that [which respectively] join a plurality of branches of [for] the tree structure using [are represented by] a sequence of symbols, [the] sequences of symbols for [of] two of the nodes differing at a position that [which] corresponds to a [the] distance [in] between the two nodes and a node that joins the two nodes to [their joining node within] the tree structure[,];

[ - a free node refers to a non-assigned CDMA code and an occupied node refers to an assigned CDMA code,

- all the] allocating a CDMA code to a data link by selecting free nodes that [which] are not directly connected[, upwards or downwards] in the tree structure[,] to a node that is [which has already been] occupied;[ i.e. differ from an already occupied node in at least one symbol, are selected for the allocation of a CDMA code to a link,

- the] determining a position in the sequence of symbols that corresponds to [at which] a difference from an [already] occupied node [occurs,] and a sum of [the] positions for [the]

occupied nodes, [occurs, is determined for the selected nodes, in each case] starting with a [the] root of the tree structure[,]; and

[-] allocating a [the] channel in the data link with a [the] CDMA code that [which] corresponds to a [the] node with a predefined [predefinable] sum [is allocated].

2. (Amended) The method as claimed in claim 1, wherein, in [in which] the tree structure, a [is constructed in such a way that the] distance between a node and the root corresponds to an increase in a [the] spread factor [(SF)] of the CDMA code[,] and [thus] to a reduction in a [the] data rate for the link.

3. (Amended) The method as claimed in claim 1 [or 2], wherein [in which] the predefined [predefinable] sum is a [the] smallest of the sums of positions of occupied nodes.

4. (Amended) The method as claimed in claim 2, wherein the predefined [in which the predefinable] sum for a link to a data rate which does not vary by more than a predetermined amount [very much] is a [the] greatest of the sums of positions of occupied nodes.

5. (Amended) The method as claimed in claim 4, further comprising:  
defining [in which] an increased [increase] possibility for a data rate of the link [is defined]; and

selecting a node with a difference from an [already] occupied node at a specific position [is selected], the specific position corresponding to the increased [increase] possibility.

6. (Amended) The method as claimed in claim 5, wherein the increased [in which an increase] possibility [for the links for the already occupied nodes] is [additionally] taken into account when selecting [in the selection of] the node.

7. (Amended) The method as claimed in claim 2, wherein [in which] a plurality of channels with different CDMA codes are allocated, a desired data rate resulting from a [the] totality of [the] individual data rates of the CDMA codes.

8. (Amended) The method as claimed in claim 1 [one of the preceding claims], [in which] wherein the symbols are digital values, and from each node a branch branches off in a [the] direction of the root and two branches branch off in an [the] opposite direction.

9. (Amended) The method claimed in claim 8, wherein [in which,] starting from the root of the tree structure, [the] two [following] nodes of [the] outgoing branches of the tree structure are mapped using [by means of] an additional “0” or “1” in the sequence of symbols[, the number of bits corresponding to the sequence of symbols with the spread factor (SF)].

10. (Amended) The method as claimed in claim 1, wherein [one of the preceding claims, in which] the CDMA codes are orthogonal codes [(OVSF)] with a variable spread factor.

11. (Amended) The method as claimed in claim 1, wherein allocating a channel [one of the preceding claims, in which the allocation of channels] for a [the] downward direction of a radio interface is performed [carried out] in a broadband radio communications system.

12. (Amended) The method as claimed in claim 1, wherein at least one of [one of the preceding claims, in which] a desired data rate and increased [and/or increase] possibility for a data rate of the link is derived from an identifier of a mobile station [(MS)].

13. (Amended) The method as claimed in claim 1, wherein at least one of [one of claims 1 to 11, in which] a desired data rate and increased [and/or increase] possibility for a data rate of the link is derived from a signaled request of a mobile station [(MS)].

14. (Amended) A device for carrying out the method as claimed in claim 1 for a communications system with [a] CDMA subscriber separation, the device comprising: [having] a storage device [(SP)] for storing the tree structure, the occupied nodes and the CDMA codes[, having]; and a processing device [(BE)] for selecting a non-occupied node with a [corresponding] CDMA code and for allocating a channel with the CDMA code to a link.